

US Bureau of Reclamation  
**Additional Phase II Program Element Issues and Concerns**  
February 25, 1998

**Levee System**

- The Levee program should define levee and channel problems clearly or concisely. Critical levees need to be identified which have environmental and operational impacts if they fail, and what actions could be taken to resolve these problems..
- Clear goals must be identified for the Bay-Delta Flood Control system.
- The Levee program should identify how private levees are integrated into goals of increasing levels of protection within the Delta. The program now identifies a base level of protection as Public Law 84-99 standards. This law does establish clear level of protection standards. The administrative rules associated with implementation of the P.L. 84-99 establish design standards to which levees should be built but these apply to whatever level of protection is being attained.
- The flood control program needs to be better integrated with the other common programs. Specifically, the program needs to identify which levees, including private, State, and Federal levees are critical to operation of State and Federal pumping facilities and to maintaining the hydrodynamics of the Bay-Delta enabling efficient attainment of water quality standards.
- Modeling of Suisun Marsh and other Delta levees should be done to identify the critical levees needed to maintain export capabilities and water quality standards. In committee discussions Delta levees have been defined as those eligible in AB 360 without the Suisun Marsh. Many of these levees (including private levees) influence the ability to convey fresh water through the Delta for export pumping as well influence the ability to meet water quality standards.
- The concern for long-term funding for maintaining and rehabilitating Delta levees should be adequately addressed. Various program elements call for new set-back levees as well as significant improvements to other existing levees. Given settlement and subsidence conditions in the Delta construction of new set-back levees will require a long-term source of funding to ensure maintenance of levee heights and levels of protection.
- Emergency plans still need to be developed to address the potential adverse affects to meeting Delta water quality standards and export pumping facilities and as a result of levee failures. Contingency plans need to be established to minimize the risk to water supply operations as a result of levee system failures.
- There is a concern that the ERPP flow objectives and flood control restrictions have not been modeled adequately and could have significant effects on operational flexibility.

## **Water Quality**

- There needs to be a thorough evaluation of salinity mass balance.
- Additional understanding of agricultural water quality objectives and strategies to meet them needs to be developed.
- There is a need to develop a process to determine which controllable water quality parameters are most important to fish populations and the environment.

## **Ecosystem Restorations**

- There is a need to continue to develop performance measures identified for the ERP. Scientific review should be incorporated into the process.
- The role of conceptual models for the ERPP and the Adaptive management Process has not been clearly defined.
- There is a concern that the Comprehensive Monitoring and Research Plan is focused on the ERPP although it may be relied upon to coordinate and monitor all the CALFED common programs and elements.
- There continues to be an issue revolving around the legitimacy and availability of the ERPP flow objectives during certain years.
- The 'Time-Value' of water concept is being heavily relied upon with little analysis at this point. Suggest clearly defining the concept and analyzing further modeling results with various operating scenarios.
- There continues to be various opinions regarding the effects of habitat on fishery population abundance and whether or not diversion effects will become insignificant to those populations.

## **Water Use Efficiency**

- There is a concern that water use efficiency may vary based on the preferred alternative Water transfers, recycling, and BMPs such as conjunctive use may be influenced by the each alternative configuration.
- Less than three million acres have been signed up under the agricultural MOU. There will have to be several more districts signed up to have a majority of the districts participating. Districts then have another two years to prepare a plan. There should be a realistic deadline for determining if this process is working. (The January 1999

deadline in the technical appendix may be unrealistic.) Other strategies (besides the jump to regulatory) should be developed in order to ensure that water conservation plans are developed and implement, if the MOU does not work.

- Pricing by volume does not appear as big an issue but it is still a major difference between the Ag Council's approach and the USBR approach.
- The role of the urban and agricultural councils are still undetermined. Will there be any agency oversight? The urban council has buy-in by the environmental organizations while the agricultural council does not have the same buy-in.
- Process details on how the agricultural council deals with plans that have been deemed adequate by Reclamation is still undetermined. Currently there are several Ag. contractors who have not signed on to the MOU because they perceive the situation as double jeopardy and do not see any additional benefit that they can received by preparing an Ag. Council plan..
- CALFED emphasizes that technical assistance will be provided by DWR and USBR. There remains questions as to what level of technical assistance will be required from these agencies and how will this impact present staffing and funding.
- In urban landscape, the assumption that landscapes are being irrigated at 1.2 ETO may be too high. Coastal areas may be able to assume an ETO of 1.0 based on being less lawn intensive. The present assumption may underestimate the landscape conservation potential?
- CALFED has estimated that there is no water to be conserved from the Sacramento Valley. This would question the need to push the WUE component in this region. This should be analyzed through a water balance. This may be an outcome of the MOU between Reclamation and the Sacramento Valley Settlement contractors. Even if there is no "real" water to conserve are there other benefits that can be realized from implementing BMPs such as water quality and timing. These types of BMPs could justify limited water transfers or be financed by stakeholders receiving the benefits.
- USBR is now developing regional criteria for water conservation planning. If successful, how will this approach be embraced by the Ag. Council?
- There are additional details such as designed and funding of rotational fallowing program and which needs further work and clarification of whether or not this can be viewed as a new water supply. Also, the question of land retirement as tool needs explaining.

#### **Water Transfers**

- Uncertainty about what constitutes transferable water when the transfer relies on saved or

conserved water, and in particular the definition of consumptive use.

- Regulatory process problems and permit streamlining.
- Accounting and tracking of instream transfers.
- Priority of access to project facilities for transferred water.
- Lack of agreement on carriage water requirements in the Delta.
- Lack of agreement on reservoir refill criteria.
- Groundwater transfers.
- Protection of environmental values.
- The nature, extent and ability to mitigate third party impacts.
- User vs. District initiated transfers and local control;
- Water rights and area of origin protection;
- Assumptions about transfers and capacity of new facilities;
- Storage and carryover issues (other than reservoir refill);
- Expansion of consumptive use in anticipation of transfers;
- Transfer of riparian and pre-1914 rights;
- Transfer of Sacramento River base supply water;
- Interpretation of the "no injury" rule and the distinctions among types of adverse impacts (significant, avoidable, acceptable);
- Use of transfers to improve instream water quality and flow timing.

### **Watershed Management**

- The watershed management strategy is undeveloped and requires clear goals, objectives and process to assure coordination with other programs.

### **Storage**

- The level of detail in the programmatic document may be of insufficient detail to make meaningful decisions. The range of storage options, both in terms of capacity and operation, are so broad as to make analysis very problematic.
- The programmatic document stresses off stream storage. There needs to be more discussion related to increasing storage at existing reservoirs.
- No water balance of the system accounting for either existing or future demands has been completed. This makes it difficult to clearly define the need for additional storage. The lack of this information also makes it difficult to identify the most appropriate locations for additional storage, whether north, south, or within Delta.
- Certain modeling assumptions and parameters are of concern. Some assumptions may not be valid, potentially resulting in conclusions that are not correct.
- The programmatic document needs to better document the sensitivity of modeling results, uncertainties in the analysis, and identify areas where knowledge is limited.
- The hydrology of the various watershed basins has not been clearly documented to identify the most efficient watersheds where establishment of additional storage would be feasible or provide the most benefit.
- Assurances for maintenance of water supply reliability and phasing of implementation needs to be more clearly defined given the long lead time required to implement any additional storage projects.
- No modeling has been accomplished related to the potential for modified Delta water quality standards as a result of additional storage.
- The utilization of off-stream storage is described as capturing flood flows. Given the timing and duration of peak flood flows, modeling needs to be completed to demonstrate the capability and feasibility of off stream storage pumping facilities to actually catch and store peak flood flows. There would be relatively little water available during droughts like 1928-34 or 1986-92. During these droughts no new water would go into storage. The only additional water would be that water that one was able to enter the drought with. There may be conflict with the assumption that only the first 500,000 af of offstream storage in the Sacramento Valley has any productive capability.